

BLACK & DECKER®

VEHICLE POWER SYSTEM

200 WATT POWER INVERTER

WITH USB CHARGING PORT

INSTRUCTION MANUAL



Catalog Number P1200AB

Thank you for choosing Black & Decker!

Go to www.BlackandDecker.com/NewOwner to register your new product.

PLEASE READ BEFORE RETURNING THIS PRODUCT FOR ANY REASON:

If you have a question or experience a problem with your Black & Decker purchase, go to [HTTP://WWW.BLACKANDECKER.COM/INSTANTANSWERS](http://www.BlackandDecker.com/INSTANTANSWERS) for instant answers 24 hours a day.

If you can't find the answer or do not have access to the internet, call 1-800-544-6986 from 8 a.m. to 5 p.m. EST Mon. – Fri. to speak with an agent.

Please save the catalog number available when you call.

SAVE THIS MANUAL FOR FUTURE REFERENCE.

Cat. # P1200AB Form # 90556307

Oct. 2009 Copyright © 2009 Black & Decker Printed in China

SAFETY GUIDELINES DEFINITIONS

⚠ DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION: Use without the safety alert symbol indicates potentially hazardous situation which, if not avoided, may result in property damage.

RISK OF UNSAFE OPERATION. When using tools or equipment, basic safety precautions should always be followed to reduce the risk of personal injury, improper operation, maintenance or modification of tools or equipment could result in serious injury and property damage. There are certain applications for which tools and equipment are designed. Black & Decker strongly recommends that this product NOT be modified and/or used for any application other than for which it was designed. Read and understand all warnings and operating instructions before using any tool or equipment.

IMPORTANT SAFETY INSTRUCTIONS

⚠ GENERAL SAFETY WARNINGS AND INSTRUCTIONS FOR ALL APPLIANCES

READ ALL INSTRUCTIONS

⚠ WARNING: Read all instructions before operating product. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

⚠ AVOID DANGEROUS ENVIRONMENTS. Don't use appliances in damp or wet locations. Don't use appliances in the rain.

⚠ STAY OUTSIDE APPLIANCES INDOORS. When not in use, appliances should be stored indoors in dry, and high or locked-up place – out of reach of children.

⚠ DON'T FORCE APPLIANCE. It will do the job better and with less likelihood of a stored injury at the rate for which it was designed.

⚠ USE RIGHT APPLIANCE. Do not use the appliance for any job except that for which it is intended.

⚠ DISCONNECT APPLIANCE. Disconnect the appliance from the power supply when not in use, before servicing, and when changing accessories such as blades and the like.

⚠ PROPER COOLING IS ESSENTIAL WHEN OPERATING THE INVERTER. Do not place the unit near the vehicle's heat vent or in direct sunlight.

⚠ ELECTRICAL FAULT CIRCUIT INTERRUPTER protection should be provided on the circuits or outlets to be used. Recreables are available having built in electrical fault circuit interrupter protection and may be used for this measure of safety.

⚠ USE OF ACCESSORIES AND ATTACHMENTS. The use of any accessory or attachment not recommended for use with this appliance could be hazardous. **Note:** Refer to the accessory section of this manual for further details.

⚠ CHECK DAMAGED PARTS. A part that is damaged should be properly repaired or replaced by an authorized service center.

⚠ OUTDOOR USE EXTENSION CORDS. When an appliance plugged into this unit is used outdoors, use only extension cords intended for use outdoors and so marked. **NOTE:** THAT THIS INVERTER IS NOT INTENDED TO BE USED OUTDOORS.

⚠ EXTENSION CORDS. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in the voltage resulting in loss of power and overheating. The following table shows the correct size for the cord. Most AC depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

Minimum Gauge for Cord Sets		Total Length of Cord in Feet			
Volts		1-100	101-150		
120V	0-25 (0-7.6m)	16-20 (7.6-15.2m)	16-20 (15.2-30.4m)	14-16 (30.4-45.7m)	
240V	0-50 (15.2-30.4m)	51-100 (15.2-30.4m)	101-200 (30.4-60.9m)	201-300 (60.9-91.4m)	
Ampere Rating		American Wire Gauge			
More Than	Not more Than				
6	10	18	16	16	14
10	12	16	16	14	12
12	16	14	12		Not Recommended

⚠ WARNING: This product or its power cord contains lead, a chemical known to the State of California to cause cancer and birth defect or other reproductive harm. Wash hands after handling.

⚠ WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK:

- Do not connect to AC distribution wiring.

• Do not make any electrical connections or disconnections in areas designated as IGNITION PROTECTED. This includes the DC cigarette lighter type plug connection or airplane adapter. This unit is NOT approved for ignition protected areas.

• NEVER immerse the unit in water or any other liquid, or use when wet.

• Do not insert foreign objects into the AC outlet or the USB outlet.

⚠ WARNING: TO REDUCE THE RISK OF FIRE:

- Do not operate near flammable materials, fumes or gases.
- DO NOT expose to extreme heat or flames.

⚠ CAUTION: TO REDUCE THE RISK OF INJURY OR PROPERTY DAMAGE:

- Remove appliance plug from outlet before working on the appliance.
- DO NOT attempt to connect or set up the unit or its components while operating your vehicle. Not paying attention to the road may result in a serious accident.
- Always use the inverter where there is adequate ventilation. Do not block ventilation slots.
- ALWAYS turn the inverter OFF by disconnecting it from the DC accessory outlet when not in use.
- Make sure the nominal powering voltage is 12 volts DC, center connection positive (+).
- When using this unit in a vehicle, check the vehicle owner's manual for maximum power rating and recommended output. Do not install in engine compartment – install in a well ventilated area.
- Do not use with positive ground electrical systems*. Reverse polarity connection will result in a blown fuse and may cause permanent damage to the inverter and will void warranty.
- *The majority of modern automobiles, RVs and trucks are negative ground.
- Keep in mind that this inverter will not operate high wattage appliances or equipment that produce heat, such as hair dryers, microwave ovens and toasters.
- Do not open the inverter – there are no user-serviceable parts inside.
- Do not use this inverter with medical devices. It is not tested for medical applications.
- Keep away from children. This is not a toy!
- Install and operate unit only as described in this Instruction Manual.
- Do not use this inverter on a watercraft. It is not qualified for marine applications.
- Check unit periodically for wear and tear. Take to a qualified technician for replacement of worn or defective parts immediately.
- Read And Understand This Instruction Manual Before Using This Unit.

SAVE THESE INSTRUCTIONS

⚠ WARNING: TO REDUCE THE RISK OF INJURY:

Follow these instructions and those published by battery manufacturer and the manufacturer of any equipment you intend to use with this unit. Review cautionary markings on these products and on engine.

INTRODUCTION

Thank you for purchasing the **P1200AB 200 Watt Power Inverter with USB Charging Port**. This inverter can be used to operate personal electronics such as: laptop computers, digital/video cameras, MP3 players, cell phones, PDAs, and more. It can also be used to recharge 110/120 volt AC devices that have an appropriate recharging adapter with a standard North American two- or three-prong plug. Please read this instruction Manual carefully before use to ensure optimum performance and to avoid damage to this product.

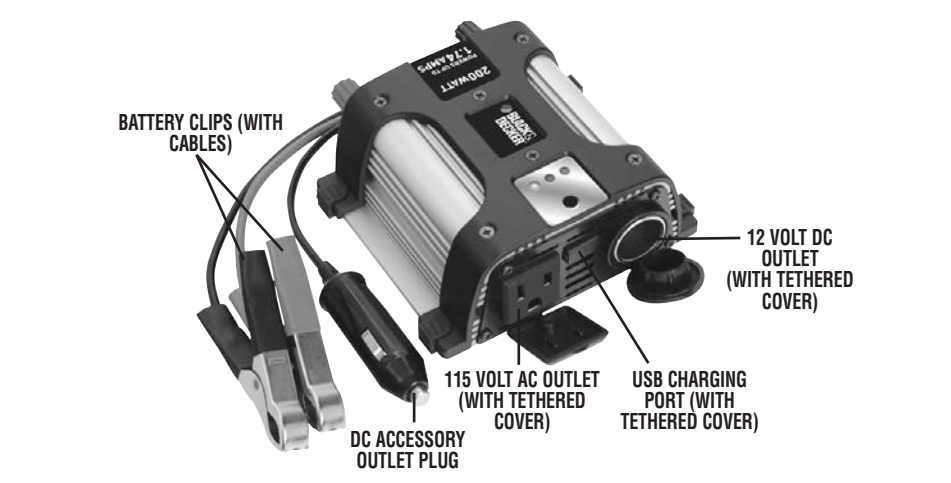
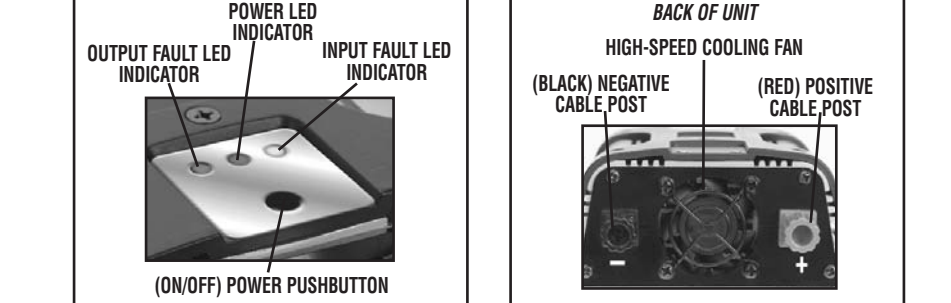
FEATURES

The front panel provides three LED indicators. The green LED indicates power and proper operation of the inverter. The AC and USB outlets are ready to use. The red LED indicates inverter shutdown from an over-load or over-temperature fault and the yellow LED indicates an input fault. (If the red or yellow Fault LED Indicator lights, refer to the Troubleshooting Section of this Instruction Manual.)

The Power Pushbutton turns the inverter ON and OFF. It can also be used to force reset of inverter circuits by pressing it OFF (no LEDs are lit), then back ON again.

AC power is supplied through a standard North American three-prong type outlet. The outlet can accommodate either two- or three-prong AC plugs. Power may also be supplied through the 12 volt DC outlet.

Controls and Functions



HOW THIS INVERTER WORKS

This inverter is an electronic device that converts low voltage DC (direct current) electricity from a battery to 115 volt AC (alternating current) household power. In designing this inverter, Black & Decker incorporated design techniques previously employed in computer power supplies. The result of these design innovations is a smaller, lighter and easier-to-use power inverter.

The **200 Watt Power Inverter with USB Charging Port** converts power in two stages. The first stage is a DC-to-DC conversion process that lowers the low voltage DC at the inverter input to 14.5 volts DC. The second stage is a MOSFET bridge stage that converts the high voltage DC to 115 volts AC.

The DC-to-DC converter stage uses creative, high frequency, zero voltage switching power conversion techniques that replace the bulky transformers found in less technologically advanced models. The inverter stage uses advanced power MOSFET transistors in a full bridge configuration.

Power Inverter Output Warning

The AC output waveform of this inverter is known as a modified sine wave. It is a stepped waveform that has characteristics similar to the sine wave shape of utility power. This type of waveform is suitable for most AC loads, including linear and switching power supplies used in electronic equipment, transformers, and small motors. The modified sine wave produced by this inverter has an RMS (root mean square) voltage of 115 volts. Most AC voltimeters (both digital and analog) are sensitive to the average value of the waveform rather than the RMS value. They are calibrated for RMS voltage under the assumption that the waveform measured will be a pure sine wave. These meters will not correctly read the RMS voltage of a modified sine wave. Non-TRUE RMS meters will read about 20 to 30 volts low when measuring the output of this inverter. For accurate measurement of the output voltage of this unit, use a TRUE RMS reading voltmeter such as a Fluke 87, Fluke 800BA, Beckman 4410 or Triplet 4200.

115 Volt AC Output

⚠ CAUTION – Rechargeable Devices

Certain rechargeable devices are designed to be charged by plugging them directly into an AC receptacle. These devices may damage the inverter or the charging circuit.

- When using a rechargeable device, monitor its temperature for the initial ten minutes of use to determine if it produces excessive heat.
- If excessive heat is produced, this indicates the device should not be used with this inverter.
- This problem does not occur with most battery-operated equipment. Most of these devices use a separate charger or transformer that is plugged into an AC receptacle.
- The inverter is capable of running most chargers and transformers.

MAXX SST® Soft Start Technology*

Black & Decker's Soft Start Technology gradually "ramps up" the inverter's power to slowly start appliances that require a surge to get started. This feature provides a gradual ramp up protects the inverter and the appliance, as well as the power source, from damage and failure.

OPERATING INSTRUCTIONS

The Power Inverter must be connected only to batteries with a nominal output voltage of 12 volts. The unit will not operate from a 6 volt battery and will sustain permanent damage if connected to a 24 ANL type battery.

Always connect the **P1200AB** to the 12 volt DC power source before plugging any devices into the unit.

The standard North American 115 volt AC and USB outlets allow simultaneous operation of multiple devices. Simply plug the equipment into the unit and operate normally. **Ensure that the wattage of all equipment simultaneously plugged into the P1200AB does not exceed 200 watts continuous.**

Connection to Power Source

The Power Inverter comes equipped with a DC Accessory Outlet Plug and Battery Clips for connection to a power source.

Connecting to a Power Source Using the DC Accessory Outlet Plug

The DC Accessory Outlet Plug is suitable for operating the inverter at power outputs up to 80 watts. The tip of the plug is positive (+) and the side contact is negative (–).

Connect the inverter to the power source by inserting the DC Accessory Outlet Plug firmly into the accessory outlet of a vehicle or other DC power source.

⚠ CAUTIONS

- Connect directly to power source using the included Battery Clips when operating above 80 watts.
- Do not use with positive ground electrical systems.
- Reverse polarity connection will result in a blown fuse and may cause permanent damage to the inverter.

Notes:

- Most vehicle accessory outlet circuits have been rated at 15 to 20 amps or greater. To operate at full wattage, either use the battery clip cable (supplied) or directly wire to the power source with user-supplied wire and fuse. The majority of modern automobiles, RVs and trucks are negative ground.

Once properly connected to a 12 volt DC power source and switched on, the green Power LED Indicator lights indicating that the inverter is functioning properly. If either the yellow Input Fault LED Indicator or red Output Fault LED Indicator lights, indicating a fault condition exists, refer to the "Troubleshooting" section of this Instruction Manual.

Connecting to a Power Source Using the Provided Battery Clips

Use the provided Battery Clips (with cables) to connect the Power Inverter directly to the 12 volt power source as follows:

- Check to make sure the inverter's Power Pushbutton has been pressed OFF (no LEDs are lit) and that no flammable fumes are present in the installation area.
- Connect the RED cable to the RED post marked (+) on the back of the inverter. Connect the RED Battery Clip to the POSITIVE terminal of the battery.
- Connect the BLACK cable to the BLACK post marked (–) on the back of the inverter. Connect the Black Battery Clip to the NEGATIVE terminal of the battery.
- Make sure that all connections between cables and terminals are secure.

Direct Hardwiring to Power Source (optional connection method; hardware not included)

⚠ WARNING: It is not recommended to install with cables longer than 10ft as this can adversely effect the operation of your inverter.

Use #10 AWG wire if the inverter to power source connection is 6 feet or less. For cable lengths up to 10ft use #8AWG wire. In either case, protect the positive (+) wire from shorts by installing a 35 ANL fuse or circuit breaker close to the DC power source (battery) terminal.

- Check to make sure the inverter's Power Pushbutton has been pressed OFF (no LEDs are lit) and that no flammable fumes are present in the installation area.
- Identify the POSITIVE (+) and NEGATIVE (–) DC power source (battery) terminals.
- Install a fuse holder through a standard North American three-prong type outlet. The outlet can accommodate either two- or three-prong AC plugs. Power may also be supplied through the 12 volt DC outlet.
- Connect a length of wire on one side of the fuse holder or circuit breaker. Connect the other end of the wire to the POSITIVE (+) terminal of the inverter.
- Connect a length of wire between the inverter's NEGATIVE (–) terminal and the DC power source NEGATIVE (–) terminal.
- Connect a short length of wire to the other terminal of the fuse holder or circuit breaker. Mark it "POSITIVE" or "+".
- Connect the free end of the fuse or breaker wire to the POSITIVE (+) terminal of the DC power source (battery).
- Insert a fuse appropriate to the inverter in the fuse holder.
- Test the inverter by turning it on and plugging in a 100 watt lamp or equipment.
- If the inverter is not properly operating, then refer to the Troubleshooting section of this manual.

⚠ CAUTION

- The cable and fuse sizes given here are a general recommendation. You should always consult your National Electrical Code prior to beginning each specific installation.
- Loose connectors may cause overheated wires and melted insulation.
- Check to make sure you have not reversed the polarity. Damage due to reversed polarity is not covered by our warranty.

Connection To Load

The Power Inverter is equipped with a standard North American three-prong type outlet. Plug the cord from the equipment you wish to operate into the AC receptacle. Make sure the load requirement of your equipment does not exceed maximum continuous power.

The Power Inverter is engineered to be connected directly to standard electrical and electronic equipment in the manner described above. Do not connect the Power Inverter to household or RV AC distribution wiring. Do not connect the Power Inverter to any AC load circuit in which the neutral conductor is connected to ground (earth) or to the NEGATIVE of the DC (battery) source.

⚠ WARNING: Do not connect to AC distribution wiring!

Rated Versus Actual Current Draw of Equipment

Most electrical tools, appliances, electronic devices and audio/visual equipment have labels that indicate the power consumption in amps or watts. Be sure that the power consumption of the item to be operated is below 200 watts. The power consumption is found by multiplying the item's rated voltage (volts) by the rated current (amps).

Resistive loads are the easiest for the inverter to run. However, they will not run larger resistive loads (such as electric stoves and heaters), which require far more wattage than the inverter can handle. Inductive loads (such as TVs and stereos) require more current to operate than do resistive loads of the same wattage rating.

For safety reasons, the unit will simply shut down if it is overloaded. To restart the unit, simply unplug all devices plugged into the unit; disconnect the unit from any 12 volt DC power source; then reconnect the unit BEFORE plugging the appliance back in.

Operation of the 115 Volt AC Unit

- Connect the inverter to a functioning 12 volt DC power source as described in this Instruction Manual. If using the 12 Volt DC Vehicle Accessory Adapter, rotate the vehicle accessory plug slightly to make sure there is good contact. Make sure there is adequate space for proper ventilation of the inverter.
- Press the Power Pushbutton to turn the unit ON.
- The green Power LED Indicator will light, indicating a proper connection. If either the yellow Input Fault LED Indicator or red Output Fault LED Indicator lights, indicating a fault condition exists, refer to the "Troubleshooting" section of this Instruction Manual.
- If the inverter does not work, make sure the ignition/accessory switch is actually powering the accessory outlet. Some vehicles require the ignition switch to be turned on.
- Plug the (110/120 volt AC) appliance into the Inverter's three-prong AC outlet and operate normally.

Note: The inverter will not operate appliances and equipment that generate heat, such as hair dryers, electric blankets, microwave ovens and toasters.

Remember to disconnect the inverter from any power source when not in use.

Operation of the USB Charging Port

- Connect the inverter to a functioning 12 volt DC power source as described in this Instruction Manual. If using the 12 Volt DC Vehicle Accessory Adapter, rotate the vehicle accessory plug slightly to make sure there is good contact. Make sure there is adequate space for proper ventilation of the inverter.
- Press the Power Pushbutton to turn the unit ON.
- The green Power LED Indicator will light, indicating a proper connection. If either the yellow Input Fault LED Indicator or red Output Fault LED Indicator lights, indicating a fault condition exists, refer to the "Troubleshooting" section of this Instruction Manual.
- If the inverter does not work, make sure the ignition/accessory switch is actually powering the accessory outlet. Some vehicles require the ignition switch to be turned on.
- Plug the USB-powered device into the inverter's USB Charging Port and operate normally.

Note: This unit's USB Charging Port does not support data communication. It only provides 5 volts/500mA DC power to an external USB-powered device.

Remember to disconnect the inverter from any power source when not in use.

Operation of the 12 Volt DC Outlet

- Connect the inverter to a functioning 12 volt DC power source as described in this Instruction Manual. If using the 12 Volt DC Vehicle Accessory Adapter, rotate the vehicle accessory plug slightly to make sure there is good contact. Make sure there is adequate space for proper ventilation of the inverter.
- Press the Power Pushbutton to turn the unit ON.
- The green Power LED Indicator will light, indicating a proper connection. If either the yellow Input Fault LED Indicator or red Output Fault LED Indicator lights, indicating a fault condition exists, refer to the "Troubleshooting" section of this Instruction Manual.
- If the inverter does not work, make sure the ignition/accessory switch is actually powering the accessory outlet. Some vehicles require the ignition switch to be turned on.
- Plug the DC-powered device into the inverter's 12 Volt DC Power Port and operate normally.

Note: This unit's USB Charging Port does not support data communication. It only provides 5 volts/500mA DC power to an external USB-powered device.

Remember to disconnect the inverter from any power source when not in use.

Note: Do not attempt to use this unit to power appliances that draw more than 8 amps.

Protective Features

The inverter monitors the following conditions:

Low Battery Voltage — This condition is not harmful to the inverter, but could damage the power source, so the inverter will automatically shut down when input voltage drops below 10.5 ± 0.3 volts DC.

Input Voltage Too High — The inverter will automatically shut down when DC input voltage exceeds 15.5 ± 0.5 volts, as this can harm the unit.

Thermal Shutdown Protection — The inverter will automatically shut down when the unit becomes overheated.

Overload/Short Circuit Protection — The inverter will automatically shut down when a short circuit occurs.

Notes: The Power/Fault LED Indicator will light red to indicate a fault condition before automatic shutdown occurs. If the unit shuts down, disconnect it from the 12 volt DC power source, remove the load, wait a few minutes, then plug it back in, rotating slightly to make sure there is good contact.

Operating Tips

The inverter should only be operated in locations that are:

DRY — Do not allow water or other liquids to come into contact with the inverter.

COOL — Surrounding air temperature should ideally be 10-20°C (50-68°F). Keep the inverter away from direct sunlight, when possible.

WELL-VENTILATED — Keep the area surrounding the inverter clear to ensure free air circulation around the unit. Do not place items on or over the inverter during operation. The unit will shut down if the internal temperature gets too hot. The inverter will auto-reset after it cools down.

SAFE — Do not use the inverter near flammable materials or in any locations that may accumulate flammable fumes or gases. This is an electrical appliance that can briefly spark when electrical connections are made or broken.

CARE AND MAINTENANCE

Storage

- Ideal storage temperature range is 0-40°C (32-104°F).
- Store and use the inverter in a cool, dry place with adequate ventilation for all-around air circulation.
- Avoid locations that are exposed to heating units, radiators, direct sunlight, or excessive humidity or dampness.

Fuse Replacement

The inverter is equipped with multiple internal fuses. Normally, these fuses will not "blow" unless there is a serious problem inside the unit. Internal fuses are replaceable; however, only trained personnel should attempt fuse replacement. If the unit is damaged during fuse replacement, the warranty may be voided.

The fuse in the DC Accessory Outlet Plug is user-replaceable. Make sure to first disconnect the Outlet Plug from any 12 volt DC power source; then replace the fuse with one of the same rating and type.

TROUBLESHOOTING

Common Audio Problems

Problem	Explanation/Recommendation
Buzzing sound in audio systems	Some inexpensive stereo systems and boom boxes make a buzzing sound when operated from the inverter, because the power supply in the electronic device does not properly filter the modified sine wave produced by the inverter. The only solution to this problem is to use a sound system that has a higher quality power supply.

Common Power Output Problems

Possible Cause	Recommendation
Battery voltage below 10.5 volts	Recharge battery or check DC power supply.
Equipment being operated draws too much power	<ul style="list-style-type: none">Reduce load to maximum 200 watts.Connect directly to power source using the included Battery Clips when operating above 80 watts.
Inverter in thermal shutdown condition	Allow inverter to cool down. Ensure there is adequate ventilation around the load is less than 200 watts for continuous operation.
AC output is shorted	Unplug the AC appliance. Disconnect the unit from any 12 volt DC power source. Check the appliance cord. Refer to the Service Information section that follows to contact a Black & Decker Service Center.

Red or Yellow Fault LED Indicator Lights

The red Fault LED Indicator inverter shutdown from an over-load fault and the yellow Fault LED Indicator an input or over-temperature fault. See the "Protective Features" and "Common Power Output Problems" sections.

ACCESSORIES

Recommended accessories for use with your tool are available from your local dealer or authorized service center. If you need assistance regarding accessories, please call: 1-800-544-6986.

⚠ WARNING: The use of any accessory not recommended for use with this tool could be hazardous.

INFORMACIÓN DE MANTENIMIENTO

Los Centros de servicio de Black & Decker cuentan con personal altamente capacitado dispuesto a brindar a todos los clientes un servicio eficiente y confiable en la reparación de herramientas eléctricas. Si necesita consejo técnico, reparaciones o piezas de repuesto originales de Black & Decker, póngase en contacto con el centro de servicio Black & Decker más cercano a su domicilio. Para ubicar su centro de servicio local, consulte la sección "Herramientas eléctricas" (Tools-Electric) de las páginas amarillas de la guía telefónica.

GARANTÍA COMPLETA DE DOS AÑOS PARA EL USUARIO

Black & Decker (Estados Unidos) Inc. ofrece una garantía de dos años por cualquier defecto del producto o de fabricación de este producto. El producto defectuoso se reparará o reemplazará sin costo alguno de dos maneras.

La primera opción, el reemplazo, es devolver el producto al comercio donde se adquirió (siempre y cuando se trate de un comercio participante). Las devoluciones deben realizarse conforme a la política de devolución del comercio (generalmente, entre 30 y 90 días posteriores a la venta). Le pueden solicitar comprobante de compra. Consulte en el comercio acerca de la política específica sobre devoluciones una vez excedido el plazo establecido.

La segunda opción es llevar o enviar el producto (con flete pago) a un Centro de servicio propio o autorizado de Black & Decker para su reparación o reemplazo según nuestro criterio. Le pueden solicitar el comprobante de compra. Los Centros de servicio autorizados y de propiedad de Black & Decker se detallan en la sección "Herramientas eléctricas" (Tools-Electric) de las páginas amarillas de la guía telefónica.

Esta garantía no se extiende a los accesorios. Esta garantía le concede derechos legales específicos; usted puede tener otros derechos que pueden variar de un estado o a la política. Si tiene alguna pregunta, comuníquese con el gerente del Centro de servicio de Black & Decker de su zona. Este producto no está diseñado para uso comercial.

AMÉRICA LATINA: esta garantía no se aplica a los productos que se venden en América Latina. Para los productos que se venden en América Latina, debe consultar la información de la garantía específica del país de origen que viene en el empaque, llamar a la compañía local o visitar el sitio Web a fin de obtener esa información.

SAFETY INSTRUCTIONS

Maximum Continuous Power: 200 watts

Surge Capacity: 400 watts

USB Output: 5 V DC (500mA)

DC Outlet: 8 amps

Input Voltage: 12 volts

Output Voltage: Approx. 115 volt AC RMS 60 Hz

Low Voltage Alarm: <11.0 volts DC

Low Voltage Shutdown: 10.5 ± 0.3 volts DC

Thermal Shutdown: Automatic

Wave Form: Modified Sine Wave (MSW)

Output Connection: North American Standard Receptacles

Fuses: Internal / DC Accessory Plug: 8 amps

Battery clip cables: 12V DC adapter cable 10-20°C (50-68°F)

Operating Temperature: 0-40°C (32-104°F)

Storage Temperature: 10-20°C (50-68°F)

Operating/Relative Humidity: 0-95% non-condensing

Imported by Black & Decker (U.S.) Inc., 701 E. Joppa Road, Towson, MD 21286 U.S.A.

See "Tools-Electric" - Yellow Pages - for Service & Sales

Maximum Continuous Power:	200 watts
Surge Capacity:	400 watts
USB Output:	5 V DC (500mA)
DC Outlet:	8 amps
Input Voltage:	12.8 volts
Output Voltage:	Approx. 115 volt AC RMS 60 Hz
Low Voltage Alarm:	< 11.0 volts DC
Low Voltage Shutdown:	10.5 ± 0.3 volts DC
Thermal Shutdown:	Automatic
Wave Form:	Modified Sine Wave (MSW)
Output Connection:	North American Standard Receptacles
Fuses:	Internal / DC Accessory Plug, 8 amps
Input Cables:	Battery clip cables / 12V DC adapter cable
Operating Temperature:	10-20°C (50-68°F)
Storage Temperature:	0-40°C (32-104°F)
Operating/Relative Humidity:	5-95% non-condensing

SISTEMA DE ENERGÍA DEL VEHÍCULO

CONVERSOR ELÉCTRICO DE 200 VATIOS

CON PUERTO DE CARGA USB

MANUAL DE INSTRUCCIONES

Número de catálogo P1200AB

Gracias por elegir Black & Decker!

Visite www.BlackandDecker.com/NewOwner para registrar su nuevo producto.

LEA EL MANUAL ANTES DE DEVOLVER ESTE PRODUCTO POR CUALQUIER MOTIVO:

Si tiene una consulta o algo inconveniente con su producto Black & Decker, visite [HTTP://WWW.BLACKANDECKER.COM/INSTANTANSWERS](http://www.BlackandDecker.com/INSTANTANSWERS) para obtener respuestas instantáneas las 24 horas del día.

Si no encuentra la respuesta o no tiene acceso a Internet, llame al 1-800-544-6986 de lunes a viernes de 8 a.m. a 5 p.m. hora del Este para hablar con un agente.

Cuando llame, tenga a mano el número de catálogo.

CONSERVE ESTE MANUAL PARA FUTURAS CONSULTAS.

N.º de catálogo P1200AB N.º de formulario 90556307

Oct. 2009 Copyright © 2009 Black & Decker Impreso en China

NORMAS DE SEGURIDAD: DEFINICIONES

⚠ PELIGRO: Indica una situación de peligro inminente que, si no se evita, provocará la muerte o lesiones graves.

⚠ ADVERTENCIA: Indica una situación de peligro potencial que, si no se evita, podría provocar la muerte o lesiones graves.

⚠ PRECAUCIÓN: Indica una situación de peligro potencial que, si no se evita, provocará lesiones leves o moderadas.

PRECAUCIÓN: Cuando se utiliza el símbolo de alerta de seguridad indica una situación de peligro potencial que, si no se evita, puede provocar daños a la propiedad.

RIESGO DE OPERACIÓN INSEGURA. Cuando se utilizan herramientas o equipos, siempre se deben respetar las precauciones de seguridad para reducir el riesgo de lesiones personales. La operación insegura de cualquier herramienta o equipo puede provocar lesiones graves o daños a la propiedad. Las modificaciones incorrectas de herramientas o equipos pueden provocar lesiones graves o daños a la propiedad. Las herramientas y los equipos están diseñados para determinados usos. Black & Decker recomienda entusiastamente que NO se modifique este producto y que NO se utilice para nada que no fue diseñado para que lo sea.

Lea y comprenda todas las instrucciones operativas y las advertencias antes de utilizar cualquier herramienta o equipo.

⚠ ADVERTENCIAS E INSTRUCCIONES DE SEGURIDAD GENERALES PARA TODAS LAS HERRAMIENTAS

LEA TODAS LAS INSTRUCCIONES

⚠ ADVERTENCIA: Lea todas las instrucciones antes de operar el producto. El incumplimiento de todas las instrucciones enumeradas a continuación puede provocar una descarga eléctrica, un incendio o lesiones graves.

- **EVITE LAS CONDICIONES AMBIENTALES PELIGROSAS.** No utilice artefactos en zonas húmedas o mojadas. No utilice artefactos bajo la lluvia.
- **GUARDE LOS ARTEFACTOS QUE NO UTILICE EN EL INTERIOR.** No utilice los objetos, los artefactos dentro del apartamento en el interior en un lugar seco, alto o bajo fuego, lejos del alcance de los niños.
- **NO FUERCE EL APARATO.** Trabaje mejor y con menos probabilidad de riesgo de daños si se opera a la velocidad para la que fue diseñado.
- **UTILICE EL APARATO ADECUADO.** Nunca utilice el aparato para otra tarea que no sea aquella para la que fue diseñado.
- **DESCONECTE LOS APARATOS.** Desconecte el aparato de la fuente de energía cuando no lo utiliza, antes de realizar un mantenimiento y al cambiar accesorios como hojas y elementos semejantes.
- **EL ENFRIAMIENTO CORRECTO ES FUNDAMENTAL AL OPERAR EL CONVERTIDOR.** No coloque la unidad cerca de los orificios de ventilación del vehículo ni la exponga a la luz solar directa.
- **LA PROTECCIÓN DEL INTERRUPTOR DEL CIRCUITO DE LA AVERÍA ELÉCTRICA** se debe proporcionar en los circuitos o los enchufes que se utilizarán. Los receptáculos están diseñados que construyen en la protección del interruptor del circuito de la avería eléctrica y se pueden utilizar para esta medida de seguridad.
- **USO DE SUPLEMENTOS Y ACCESORIOS.** El uso de accesorios o dispositivos no autorizados con este aparato puede resultar peligroso. **Nota:** Consulte la sección "Accesorios" de este manual para obtener detalles adicionales.
- **VERIFIQUE QUE NO HAYA PIEZAS DAÑADAS.** Una pieza se daña que se debe reparar o sustituir correctamente por un centro de servicio autorizado.
- **EN ESPACIOS ABIERTOS, USE CABLES PROLONGADORES.** Cuando una aplicación tapada en esta unidad se utiliza al aire libre, utilice solamente las cuerdas de la extensión previstas para su uso al aire libre y así que marcado. OBSERVE QUE ESTE INVERSOR NO ESTÁ PENSADO PARA SER UTILIZADO AL AIRE LIBRE.
- **CABLES PROLONGADORES.** Asegúrese de que el cable prolongador esté en buenas condiciones. Cuando utilice un cable prolongador, asegúrese de que tenga la capacidad para conducir la corriente que su producto exige. Un cable de menor capacidad provocará una disminución en el voltaje de la línea, lo cual producirá una pérdida de potencia y sobrecalentamiento. La siguiente tabla muestra la medida correcta que debe utilizar según la longitud del cable y la capacidad nominal en amperios indicada en la placa. En caso de duda, utilice el calibre inmediatamente superior. Cuanto menor es el número de calibre, más grueso es el cable.

Capacidad nominal en amperios

Voltios	Calibre mínimo para los juegos de cables	Longitud total del cable en pies		
120V	0-25 (0-7.6m)	26-50 (7.6-15.2m)	51-100 (15.2-30.4m)	101-150 (30.4-45.7m)
240V	0-50 (15.2-30.4m)	51-100 (15.2-30.4m)	101-200 (30.4-45.7m)	201-300 (60.9-91.4m)

Capacidad nominal en amperios

